About Myself

Petr Stepanov (Peter)

stepanovps@gmail.com (419) 496-8602

CURRENT ROLE

2 years • *Postdoc at Thomas Jefferson National Laboratory (JLab), employed by CUA* • *Newport News, VA*

- Application of the Geant4 (C++) particle simulation framework for **optical simulations** for the EIC project.
- Utilizing CERN ROOT libraries (C++) for experimental **data fitting and analysis** for Kaon-LT project.
- Conducting hi-energy particle (HEP) **experiments** at the **particle accelerator**, Hall C.
- Application of the TMVA **Machine Learning** Framework for **binary data classification**.

`C++` `CMake` `CERN ROOT` `Geant4` `supercomputer environment`

EDUCATION

5 years • *Bowling Green State University* • *Bowling Green, OH*

Ph.D. in Photochemical Sciences. Developed three GUI open-source desktop software solutions for fitting and interpretation of the experimental data. `C++` `GNU Make` `Qt`

5 years • *National Research Nuclear University* • *Moscow, Russia*

M.S. in Solid State Physics. Monte-Carlo particle simulations. Desktop scientific software development.

`Fortran` `MSVC`

6 months • *British Higher School of Art & Design* • *Moscow, Russia*

Three-month intensive on graphical design and visual communications.

`Typography` `Illustration` `Visual identity` `Brand design`

About Myself

RESEARCH AND WORK EXPERIENCE

5 years • *Research Assistant (Desktop Software Developer)* • *Bowling Green, OH*

- Assembled and utilized positron lifetime (PALS) and Doppler spectrometers (DBAR) from ORTEC and Canberra fast electronic units.
- Experience with semiconductor High-Purity Germanium detectors (HPGe) and scintillation-based detector systems.
- Developed open-source software (C++, CERN ROOT) for novel interpretation of the experimental spectra.
- Defined and resolved kinetic equations of reactions of positrons in solids and nano-powders (Wolfram Mathemetica). Equation parameters are extracted from spectra fitting models.
- Above research allowed for estimation of defect concentrations and sizes in solids, classification of defect types (vacancies, dislocations) and more…

5 years • *Gridnine Systems* • *Frontend Software Engineer*

Enterprise software development with **Agile** mindset and **DevOps** working pattern.

`Google Web Toolkit` `SVN` `Git` `JIRA` `HTML & CSS` `JavaScript` `Java`

8 years • *Freelance Frontend Developer* • *Bowling Green, OH*

Participated in numerous startups as a **web-designer**, **frontend developer** and **iOS developer**.

Prototyped, **designed** and **programmed** complex UI for enterprise projects.

`Sketch` `Figma` `Swift` `Modular JavaScript` `HTML & CSS` `React.js` `Angular`

OUTSIDE OF WORK

- Author or an open-source project for keyboard remapping tool for GNOME desktop environment.
- Open-source evangelist and daily Linux user. Reporting issues on GNOME GitLab.

Why KLA?

- I am looking to continue my Postdoc carreer and apply my Materials Science (defect studies) and programming expertise (simulations, data analysis) in the industry.
- Fascinated to apply my skills at a company with large infrastructure and perspectives.
- My Ph.D. graduate friends currently work in semiconductor industries: KLA (San Hose), Intel (Portland), Wolfspeed (Raleigh).

- KLA – good balance between applied science and computational methods. R&D, Engineering.

Professional Networks

More specific **professional achievements** and **software projects** can be found at https://petrstepanov.com.


Find examples of my code on GitHub (50+ repositories).


Check out my design portfolio on Dribbble (50+ shots).


Refer to Bēahnce for some of my former designs (30+ work examples).


Discover my professional contacts on Linkedin (230+ connections).


Skim through the list of my publications on Google Scholar (190+ citations).


Get familiar with my scientific career on ResearchGate.